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## Marital Satisfaction in Patients With Cancer: Does Support From Intimate Partners Benefit Those Who Need It the Most?

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This cross-sectional study assessed 3 ways of providing spousal support. *Active engagement* means involving the patient in discussions and using constructive problem-solving methods; *protective buffering* means hiding one's concerns; and *overprotection* refers to underestimation of the patient's capabilities, resulting in unnecessary help and excessive praise for accomplishments. Ratings of received spousal support by 68 patients with cancer revealed findings similar to those of partners' ratings of provided support. The positive association between active engagement and the patient's marital satisfaction was stronger for patients with a rather poor psychological and physical condition than for those with a rather good condition. Furthermore, protective buffering and overprotection were negatively associated with marital satisfaction only when patients experienced relatively high levels of psychological distress or physical limitations.

**Key words:** cancer, spousal support, marital satisfaction, psychological distress, physical impairment

Being diagnosed with a severe illness such as cancer can be extremely stressful. Previous research has shown that the more patients are supported by others, the better they adjust to the cancer. Moreover, the support provided by the patient's intimate partner may not be compensated for by other sources of support (Coyne & DeLongis, 1986; Helgeson & Cohen, 1996; Sarason, Sarason, & Pierce, 1994). Indeed, patients frequently report that their partner played a crucial role in their adjustment to the cancer (Rowland, 1990). Studies have revealed a positive relationship between spousal support and marital satisfaction within both healthy couples (Abbey, Andrews, & Halman, 1995; Acitelli &

Antonucci, 1994; Brunstein, Dangelmayer, & Schultheiss, 1996) and couples in distress (Abbey et al., 1995; Buunk, Berkhuisen, Sanderman, Nieuwland, & Ranchor, 1996; Vinokur, Price, & Caplan, 1996; Walsh & Jackson, 1995). The few studies of patients with cancer and their partners have also provided evidence for this positive relation (Kuijer et al., in press; Lichtman, Taylor, & Wood, 1988).

However, patients sometimes perceive the healthy partner's well-intended actions as being critical, demanding, and unhelpful (e.g., Coyne, Wortman, & Lehman, 1988; Dakof & Taylor, 1990; Dunkel-Schetter, 1984; Thompson & Pitts, 1992). As a result, and in the same way as less well-intended responses such as criticizing or shouting at the patient, some attempts by spouses to be supportive may be negatively instead of positively associated with the patient's marital satisfaction. The present study addressed this issue by examining the links between three ways in which partners may provide support and patients' marital satisfaction.

Although most empirical studies have focused on the patient's satisfaction with support or the patient's perception of the support available, we focused on the actual support attempts of the spouse. Because patients and partners do not necessarily agree with each other, patients' as well as partners' perceptions of the support provided were considered (Abbey et al., 1995; Kuijer et al., in press). Moreover, the present study addressed the ways in which spouses provided support rather than the types of support they provided. In our view, different types of support, including emotional, appraisal, informational, and instrumental support (House, 1981), can be offered in more than one way. For example, spouses

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may try to provide emotional support by asking how the patient feels, by talking about issues that are not related to the illness in order to distract the patient from his or her condition, or by asking how the patient feels every time he or she exerts himself or herself.

Following Coyne, Ellard, and Smith (1990; cf. Coyne & Smith, 1991, 1994), the present study focused on three ways of providing support: active engagement, protective buffering, and overprotection. *Active engagement* is described as involving the patient in discussions, inquiring how the patient feels, asking about the help and information needed, and using other constructive problem-solving methods. This way of providing support is similar to the conceptualization of social support used in prior studies (e.g., Acitelli & Antonucci, 1994; Lichtman et al., 1988; Vinokur et al., 1996; Walsh & Jackson, 1995) and is assumed to be helpful. In previous studies, active engagement was found to be positively associated with marital satisfaction (Buunk et al., 1996) and perceived marital improvement since diagnosis (Kuijer et al., in press).

*Protective buffering* means hiding one's concerns, denying one's worries, concealing discouraging information, preventing the patient from thinking about the cancer, and yielding in order to avoid disagreement. Partners may show protective buffering because they are uncertain about how to provide support (Kuijer et al., in press) or because they do not want to put an extra burden on the patient. Lichtman et al. (1988) found that many significant others believed that expressing fears and anxieties about recurrence and death would hinder the patient's adjustment and might even lead to a recurrence of the cancer. Nevertheless, their ill partners perceived this lack of disclosing feelings and worries as unhelpful. Furthermore, Lichtman et al. found that couples who were able to express worries and concerns about the illness had higher levels of marital adjustment. Accordingly, we expected protective buffering to be negatively related to the patient's marital satisfaction. However, although protective buffering was negatively related to well-being, Buunk et al. (1996) and Kuijer et al. found protective buffering to be unrelated to marital satisfaction.

Underestimation of the patient's capabilities, resulting in unnecessary help, excessive praise for accomplishments, or attempts to restrict activities is labeled *overprotection*. Like protective buffering, overprotective actions may be enacted by spouses because they lack self-efficacy in providing support. In addition, those who feel that their ill partner has difficulties coping with the cancer and those who feel burdened by the caregiving or feel anger toward the patient may be inclined to behave overprotectively (Coyne et al., 1990; Kuijer et al., in press; Thompson & Sobolew-Shubin, 1993). Empirical evidence suggests that overprotection undermines patients' self-efficacy in dealing with the disease (Buunk et al., 1996; Coyne et al., 1990) and patients' feelings of control over their lives and illness-related outcomes such as recovery (Kuijer et al., in press; Thompson & Pitts, 1992). Consistent with the notion that overprotection is unhelpful, Buunk and his colleagues reported that patients who perceived themselves as overprotected were less satisfied with their marriage. However, in the Kuijer et al. study, overprotection was unrelated to perceived relationship improvement. Moreover, Fiske, Coyne, and Smith (1991) found no association between overprotection and the patient's adjustment when overprotection was not caused by hostility toward the patient.

The lack of evidence for a negative association between marital satisfaction and protective buffering and overprotection (Buunk et al., 1996; Kuijer et al., in press) may indicate that these relationships are present only under certain conditions. Although it is evident that being diagnosed with cancer is stressful, not all patients will perceive the same degree of psychological distress (Weisman, 1984). Moreover, patients differ in the degree to which they are physically impaired. We argue that people who are highly distressed, seriously physically impaired, or both, perceive little control over their daily activities and want to regain control (cf. Rowland, 1990). Open discussions about the cancer with their partner and joint problem solving (i.e., active engagement) might help them to regain control, whereas protective buffering and overprotective actions of the partner undermine the patients' feelings of control even more. As a consequence, these people may be more strongly affected by the supportive actions of their partner than those who perceive little psychological and physical distress.

To our knowledge, no studies have examined the moderating role of psychological distress and physical limitations on the link between marital satisfaction and active engagement, protective buffering, and overprotection. However, many studies have demonstrated the well-known stress-buffering effect of social support (for a review, see S. Cohen & Wills, 1985; LaRocco, House, & French, 1980). There is also some evidence for the stress-buffering hypothesis among patients with chronic disease (e.g., Koopman, Hermanson, Diamond, Angell, & Spiegel, 1998; Unger, Jacobs, & Cannon, 1996). Other researchers have investigated the possible moderating role of limitations in the daily functions of living with respect to the link between social support and patients' adjustment to chronic disease (Affleck, Pfeiffer, Tennen, & Fifield, 1988; Manne, Taylor, Dougherty, & Kemeny, 1997; Revenson, Wollman, & Felton, 1983). However, results of these studies are inconsistent.

We postulated that for patients with cancer, the more their intimate partners demonstrated active engagement and the less their partners reacted with protective buffering and overprotection, the more satisfied the patients would be with their marriage, especially when patients reported high levels of psychological distress and physical limitations.

## Method

### *Participants and Procedure*

For 1 year, about 110 consecutive patients and their intimate partners were invited to participate in the study by their physician. Patients were in treatment for cancer or were visiting their surgeon for a check-up. Couples completed the questionnaire at home. They were asked explicitly to fill out the questionnaire separately and not to discuss it with each other before completion. The questionnaires were mailed directly to the investigators.

Sixty-eight patients with cancer and their partners completed questionnaires. The sample consisted of 32 male and 36 female patients with a mean age of 53 years ( $SD = 11$  years). They were, on average, diagnosed with cancer 2.8 years ago ( $SD = 4.1$  years) and suffered from various forms of cancer, such as breast cancer (21%), intestinal cancer (18%), skin cancer (16%), cancer of the larynx (9%), and bone cancer (6%). Thirty-eight percent of the patients had a metastatic site. More than half (56%) of the patients believed that their prognosis was good, 24% perceived it as uncertain, 10% perceived it as bad, and 10% gave no response. On a 5-point scale ranging from 1 (*no chance to be cured*) to 5 (*I am cured*),

patients with a metastatic site reported a poorer prognosis than patients without metastases ( $M = 2.81$  vs.  $4.28$ ),  $F(1, 59) = 31.14$ ,  $p < .001$ . Furthermore, patients with metastases had longer diagnosis duration ( $M = 4.26$  vs.  $1.94$  years),  $F(1, 63) = 5.12$ ,  $p < .05$ . Sixty percent of the patients had not received treatment during the previous month, whereas 40% either had had an operation (17.6%) or had undergone chemotherapy (11.8%) or some other kind of therapy (10.6%) during the previous month. On average, patients who recently had received treatment did not differ from those who had not with respect to time since diagnosis, presence of a metastatic site, and prognosis. This indicates that some of the treatments were given for palliative reasons. The mean age of the spouses was 54 years ( $SD = 11$  years). All couples were heterosexual and had been married (94%) or cohabiting (6%) for an average of 27.5 years ( $SD = 11$  years).

## Measures

**Ways of giving support.** On the basis of Coyne et al. (1990), Buunk et al. (1996) constructed a questionnaire to measure active engagement, protective buffering, and overprotection. Patients were asked to judge to what extent their partner adopted these ways of giving support. A parallel measure assessed the partners' perception of their own behavior. All items were measured on a 5-point scale ranging from 1 (*never*) to 5 (*very often*). Buunk et al. reported adequate internal consistencies and test-retest reliabilities for the subscales regarding perceptions of patients who had suffered a myocardial infarction as well as their partners. Kuijer et al. (in press) found satisfactory internal consistencies for these scales in a sample of couples coping with cancer. The subscale for active engagement consisted of five items. Examples are (patient perception) "My partner asks me how I feel" and "When something bothers me, my partner tries to discuss the problem" (patients:  $\alpha = .89$ ). In the partner's questionnaire the items read "I ask my partner how he or she feels" and "When something bothers my partner, I try to discuss the problem" ( $\alpha = .84$ ). Protective buffering was measured with eight items, including "My partner tries to hide his or her worries about me" and "My partner does everything to prevent me from thinking about my disease" (patients:  $\alpha = .69$ ; partners:  $\alpha = .77$ ). Six items were used to assess overprotection. Examples are "My partner treats me like a baby" and "When it comes down to it, my partner seems to think that I don't know what's right for me" (patients:  $\alpha = .76$ ; partners:  $\alpha = .60$ ). For each subscale, the items were averaged within subjects into a single score. Paired  $t$  tests showed that patients and partners did not differ in their perceptions of active engagement,  $t(67) = .05$ ,  $p > .10$ , and overprotection,  $t(67) = 1.59$ ,  $p > .10$ . However, patients perceived protective buffering to be higher than did their partners,  $t(67) = 2.34$ ,  $p < .05$ .

**Psychological distress.** Patients' psychological distress was assessed with the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977; Dutch translation by Bouma, Ranchor, Sanderman, & van Sonderen, 1995). The CES-D consists of 20 items that measure depressive symptoms. The items were completed on a 4-point scale ranging from 0 (*rarely or never*) to 3 (*almost always*). Examples are "Last week, I felt afraid" and "Last week, I felt lonely." Items were averaged within subjects into a single score ( $\alpha = .81$ ). Eighteen percent of the patients had a score at or above the cutoff score of .80 (or 16 in a summed scale), indicating that these patients were at risk for developing clinical depression.

**Physical impairment.** The Physical Functioning subscale of the RAND 36-Item Health Survey was administered (RAND Health Sciences Program, 1992; Dutch translation by Van der Zee, Sanderman, & Heyink, 1996). Patients indicated to what extent they felt impaired with respect to completing daily activities because of their health on a 3-point scale ranging from 1 (*yes, seriously impaired*) to 3 (*no, not at all impaired*). Examples of the activities rated are "Considerable effort, such as running, lifting heavy objects, and strenuous exercises," "Lifting and carrying groceries," and "Bending or kneeling." Items were reverse scored so that

higher scores indicate more serious physical impairment. Items were averaged into a single score for physical impairment ( $\alpha = .90$ ).

**Marital satisfaction.** The patients' marital satisfaction was assessed with two measures; the first measure concerned a cognitive appraisal of the relationship, and the second concerned an affective appraisal of give-and-take in the relationship. Prior research has shown that the balance in give-and-take within a relationship is closely linked to marital satisfaction (VanYperen & Buunk, 1990). First, patients filled out the Marital Quality subscale of the Maudsley Marital Questionnaire (MMQ; Arrindell, Boelens, & Lambert, 1983; Crowe, 1978; Hendriks, Sanderman, & Ormel, 1989). The items asked, for example, if patients got enough warmth and understanding from their partners and how often they considered divorcing their partners. The anchors of the 9-point scales (ranging from 0 to 8) differed for each item. Items were averaged within subjects into a single score for marital quality ( $\alpha = .90$ ). Next, patients indicated on a 3-point scale ranging from 1 (*not at all*) to 3 (*rather*) to what extent they experienced several feelings when they thought about the give-and-take in their relationship. In line with the finding that the partner's refusal to help is associated with feelings such as resentment and hurt (Clark, 1985), we constructed a new scale that was focused on negative feelings. The four negative feelings regarding give-and-take of interest were *angry*, *hurt*, *sad*, and *afraid*. Items were averaged within subjects into a single score for negative feelings ( $\alpha = .84$ ).

## Results

Table 1 presents descriptive statistics for the variables under study. Several correlations are noteworthy. First, the pattern of intercorrelations with respect to the three ways of providing support was similar for patients and spouses. Consistent with prior research (Buunk et al., 1996; Kuijer et al., in press), a higher level of protective buffering was associated with a higher level of overprotection. Active engagement and overprotection were unrelated, whereas, with respect to partner ratings, active engagement and protective buffering were significantly negatively related. Second, in line with Kuijer et al., the correlations showed a moderate agreement between patients and their partners about the ways support is provided. Third, active engagement was positively related to marital quality (patient as well as partner ratings) and negatively related to negative feelings (patient ratings). Furthermore, in contrast to prior studies (Buunk et al., 1996; Kuijer et al., in press), protective buffering was significantly negatively related to marital quality and positively related to negative feelings. Overprotection was significantly negatively associated only with negative feelings. Fourth, the three ways of providing support were not associated with patients' psychological distress and physical limitations. Moreover, psychological distress and physical impairment were only marginally related.

## Psychological Distress and Physical Impairment

Not surprisingly, the amount of psychological distress and the degree of physical impairment were, to some extent, rooted in characteristics of the cancer. Those patients who received some kind of treatment during the previous month or at present were more distressed ( $M = 0.66$  vs.  $M = 0.36$ ),  $F(1, 66) = 13.26$ ,  $p < .001$ , and had more physical limitations ( $M = 1.72$  vs.  $M = 1.42$ ),  $F(1, 66) = 6.38$ ,  $p < .05$ , than those not in treatment. Furthermore, patients were more distressed when they had longer diagnosis

Table 1  
Means, Standard Deviations, and Intercorrelations for the Variables Under Study

Variable	1	2	3	4	5	6	7	8	9	10	M	SD
1. P: Active engagement	—	-.22	.20	.48***	-.43***	-.22	.04	-.02	.59***	-.27*	3.99	0.75
2. P: Protective buffering		—	.40***	-.06	.32**	.14	-.11	.04	-.32**	.30*	2.31	0.59
3. P: Overprotection			—	.16	.08	.31*	-.09	-.11	-.07	.30*	1.90	0.65
4. S: Active engagement				—	-.40***	.01	.08	.13	.33**	-.02	3.99	0.62
5. S: Protective buffering					—	.40***	-.04	-.07	-.33**	.21	2.11	0.60
6. S: Overprotection						—	.20	.18	-.19	.41***	1.76	0.51
7. P: Psychological distress							—	.21	-.24*	.31**	0.48 <sup>a</sup>	0.35
8. P: Physical impairment								—	-.14	.31**	1.54 <sup>b</sup>	0.49
9. P: Marital quality									—	-.58***	7.17	0.89
10. P: Negative feelings										—	1.19	0.36

Note. Active engagement, protective buffering, and overprotection were measured on a scale of 1–5; psychological distress was measured with the Center for Epidemiological Studies Depression Scale (CES-D), 0–3; physical impairment was measured with the RAND 36-Item Health Survey, 1–3; marital quality was measured with the Maudsley Marital Questionnaire, 0–8; and negative feelings was measured on a scale of 1–3. P = patient perception; S = spouse perception.

<sup>a</sup> When the items of the CES-D are summed, the mean is 9.613 and the standard deviation is 7.071. <sup>b</sup> When scores are transformed using a 100-point scale for physical functioning (RAND Health Sciences Program, 1992), the mean is 72.88 and the standard deviation is 24.66.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

duration,  $r(68) = .25$ ,  $p < .05$ , and when they perceived their prognosis as bad,  $r(57) = -.32$ ,  $p < .05$ .

### Testing Moderating Effects

We performed several hierarchical regression analyses to test whether the degree of the patient's psychological distress and physical impairment, respectively, moderated the relationship between support provided by the spouse and the patient's marital satisfaction. First, the gender and the age of the patient, diagnosis duration, presence of metastasis, prognosis, recency of treatment, and relationship duration were tested for inclusion as control variables. Only gender was associated with the outcome variables as well as with some of the predictor variables (i.e., psychological distress, patient-rated overprotection, and partner-rated active engagement). For that reason and because prior research suggests that women are more strongly influenced by support than are men (Acitelli & Antonucci, 1994), gender effects were explored. Specifically, the potential moderator (i.e., psychological distress or physical impairment), spousal support (i.e., one of the three ways of giving support as perceived by either the patient or the partner), gender of the patient (dummy score: 1 = male, -1 = female), and the two- and three-way interactions were entered as predictors in subsequent steps. Multicollinearity between the predictors and the interaction terms was avoided by computing the multiplicative functions as the products of the "centered" scores (i.e., centered around zero) on the component variables (Aiken & West, 1991; J. Cohen & Cohen, 1983). Marital quality and negative feelings were entered as the dependent variables.

Only in 3 of the 24 analyses were significant gender interactions found. We describe these gender interactions below, but for reasons of simplicity and because of the rather small sample size, all other analyses presented in this article ignore gender.

### The Moderating Effect of Psychological Distress

As expected, the interactions between psychological distress and the three ways of giving support contributed significantly to mar-

ital quality and negative feelings. However, these interactions were significant only in the regression analyses with spousal support as rated by the patients. Table 2 presents the results of the analyses that included the support ratings of patients. The interaction between active engagement and psychological distress explained 6% of additional variance in negative feelings regarding give-and-take. As suggested by Aiken and West (1991), the regression slopes for psychological distress 1 standard deviation above and below the mean were calculated. Patients who perceived their partners as more actively engaged reported less negative feelings than patients who perceived their partners as less actively engaged, but only when these patients were highly psychologically distressed (see Figure 1). With regard to marital quality, only a significant Gender  $\times$  Active Engagement interaction appeared, indicating a stronger positive association between marital quality and active engagement among female patients than among male patients. The interaction between protective buffering and psychological distress increased the explained variance with 8% in marital quality and 7% in negative feelings. Only for patients who experienced relatively high levels of psychological distress was protective buffering associated with lower marital quality (see Figure 2) and more negative feelings. Although the interaction between psychological distress and overprotection did not yield a significant contribution to marital quality, it did increase the explained variance in negative feelings by a significant 7%. Only for patients who were highly psychologically distressed was perceiving the partner as more overprotective associated with more negative feelings.<sup>1</sup>

### The Moderating Effect of Physical Impairment

As displayed in Table 3, the interactions between physical impairment and the three ways of providing support as rated by the patient made unique contributions to marital quality and negative

<sup>1</sup> The interactions with psychological and physical distress that are not depicted in the figures assumed the same form as the ones that are displayed.

Table 2

*Multiple Regression of Marital Quality and Negative Feelings on Supportive Actions as Rated by Patients, Testing Moderating Effects of Psychological Distress*

Variable	Marital quality			Negative feelings		
	$\Delta R^2$	$\Delta F$	$b^a$	$\Delta R^2$	$\Delta F$	$b^a$
<b>Active engagement analysis</b>						
Gender (G)	.07	4.66*	0.15	—	—	—
Psychological distress (PD)	.03	2.42	-0.36	.10	7.03**	0.31**
Active engagement (AE)	.34	38.69***	0.64***	.09	6.28*	-0.14**
G $\times$ AE	.06	7.88**	-0.27**	—	—	—
G $\times$ PD	.03	3.70	0.36	—	—	—
PD $\times$ AE	.02	2.85	0.43	.06	4.62*	-0.29*
G $\times$ PD $\times$ AE	.02	2.30	-0.43	—	—	—
<b>Protective buffering analysis</b>						
PD	.06	4.11*	-0.69*	.10	7.03**	0.35**
Protective buffering (PB)	.12	9.38**	-0.58***	.12	9.50**	0.23***
PD $\times$ PB	.08	7.18**	-1.04**	.07	6.43*	0.39*
<b>Overprotection analysis</b>						
PD	.06	4.11*	-0.66*	.10	7.03**	0.37**
Overprotection (O)	.01	0.60	-0.13	.11	8.69**	0.18**
PD $\times$ O	.02	1.38	-0.59	.07	6.50*	0.46*

Note. Dashes indicate that regression was not calculated.

<sup>a</sup> The unstandardized regression weights concern the analyses in which all main and interaction effects were entered.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

feelings (5% to 15% of explained variance). Patients who were seriously impaired rated the quality of their marriage to be higher and reported less negative feelings regarding give-and-take when the active engagement was higher. The relation between active engagement and the dependent variables was not as strong for low physically impaired patients. With regard to marital quality, this relationship was qualified by gender, indicating that the moderat-

ing effect of physical impairment was supported only for female patients (see Figure 3). More protective buffering was associated with lower marital quality (see Figure 4) and more negative feelings, but only when patients were more rather than less seriously impaired. Similarly, more overprotection was associated with more negative feelings, but only when patients were seriously impaired (see Figure 5).

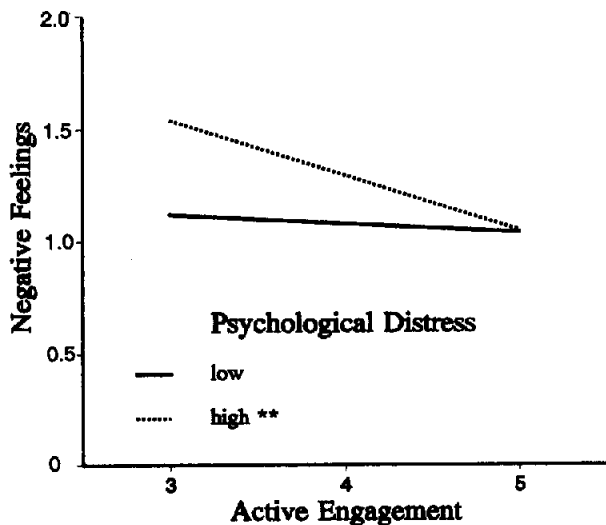


Figure 1. The interactive effect of active engagement and psychological distress on negative feelings on the basis of the patient ratings. The slope for the regression line for high psychological distress was significant: \*\*  $p < .01$ .

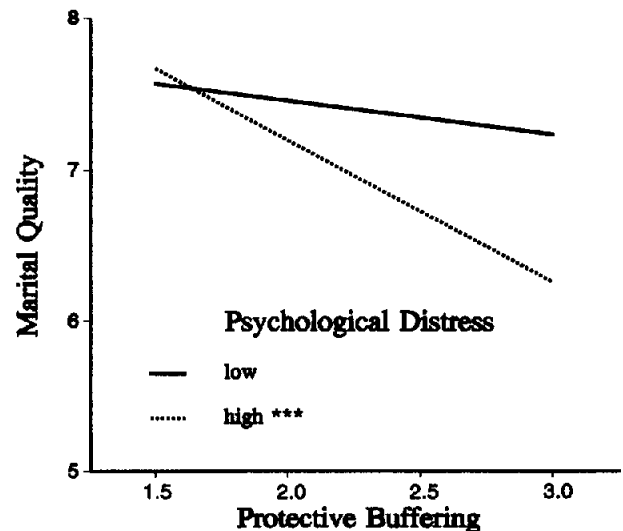


Figure 2. The interactive effect of protective buffering and psychological distress on marital quality on the basis of the patient ratings. The slope for the regression line for high psychological distress was significant: \*\*\*  $p < .001$ .

Table 3  
Multiple Regression of Marital Quality and Negative Feelings on Supportive Actions as Rated by Patients, Testing Moderating Effects of Physical Impairment

Variable	Marital quality			Negative feelings		
	$\Delta R^2$	$\Delta F$	$b^a$	$\Delta R^2$	$\Delta F$	$b^a$
Active engagement analysis						
Gender (G)	.07	4.66*	0.17*	—	—	—
Physical impairment (PI)	.01	0.69	0.05	.10	7.05**	0.17*
Active engagement (AE)	.32	34.62***	0.54***	.07	5.44*	-0.09
G $\times$ AE	.06	7.16**	-0.18	—	—	—
G $\times$ PI	.01	1.76	0.09	—	—	—
PI $\times$ AE	.05	6.41**	0.41*	.09	7.33**	-0.22**
G $\times$ PI $\times$ AE	.04	4.92*	-0.37*	—	—	—
Protective buffering analysis						
PI	.02	1.28	-0.19	.10	7.05**	0.20**
Protective buffering (PB)	.10	7.12**	-0.44**	.09	6.77*	0.17*
PI $\times$ PB	.15	12.73***	-1.09***	.09	8.20**	0.35**
Overprotection analysis						
PI	.02	1.28	-0.33	.10	7.05*	0.29***
Overprotection (O)	.01	0.50	-0.16	.11	9.13**	0.20***
PI $\times$ O	.05	3.39	-0.78	.10	8.86**	0.44**

Note. Dashes indicate that regression was not calculated.

<sup>a</sup> The unstandardized regression weights concern the analyses in which all main and interaction effects were entered.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Similarly, entering the interaction terms based on the partner's ratings of support into the analyses yielded increases in explained variance. With regard to the interactions between physical impairment and active engagement and overprotection, respectively, these increases of 3% to 5% were only marginally significant (i.e.,  $ps < .10$ ). However, the interaction between physical impairment and protective buffering explained a significant 8% of additional

variance in marital quality,  $\Delta F(1, 64) = 6.55$ ,  $b = -1.03$ ,  $p < .05$ , and 9% in negative feelings,  $\Delta F(1, 64) = 7.75$ ,  $b = .44$ ,  $p < .01$ . These interactions assumed the same form as the ones that were depicted. In addition, we found an interaction effect between gender and partner-rated overprotection on negative feelings,  $\Delta F(1, 63) = 5.53$ ,  $b = -.15$ ,  $p < .05$ ; only among female patients was more overprotection associated with more negative feelings.

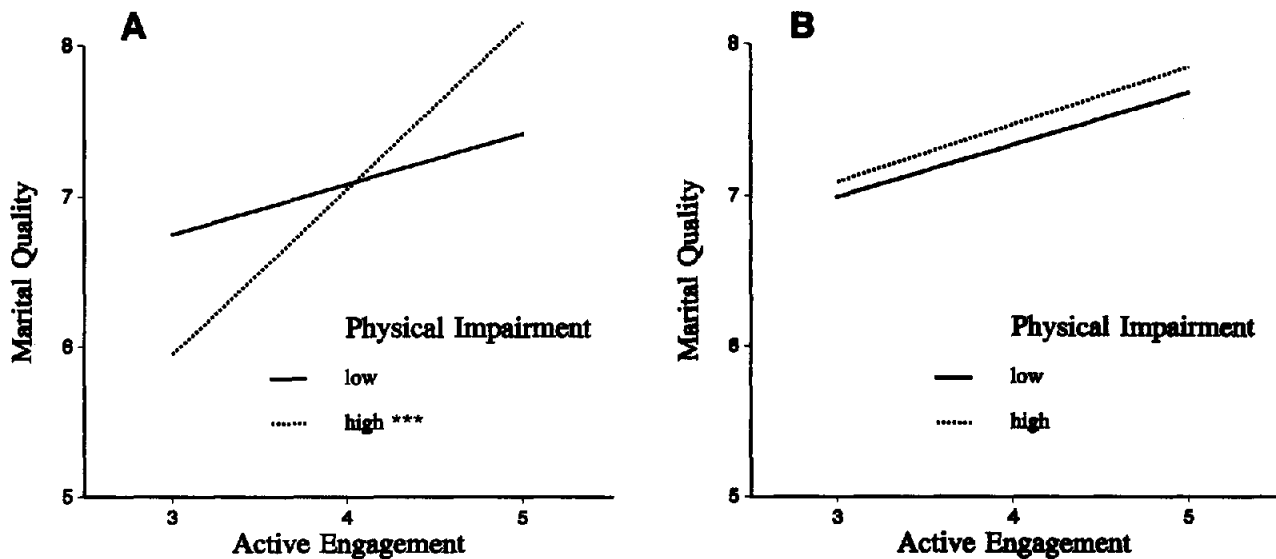


Figure 3. The interactive effect of gender, active engagement, and physical impairment on marital quality on the basis of patient ratings. A: Female patients. B: Male patients. The slope for the regression line for high physical impairment in female patients was significant: \*\*\*  $p < .001$ .

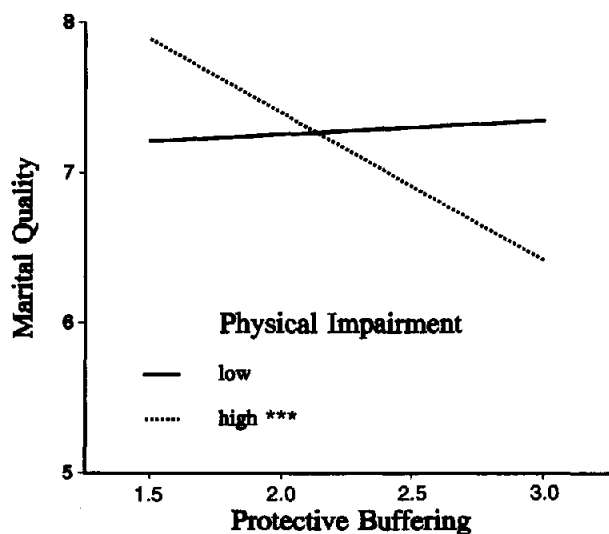


Figure 4. The interactive effect of protective buffering and physical impairment on marital quality on the basis of the patient ratings. The slope for the regression line for high physical impairment was significant: \*\*\*  $p < .001$ .

### Discussion

The results indicate that it is necessary to include several ways of providing support when examining the link between spousal support and the patients' marital satisfaction. Similar to spousal support in prior studies (e.g., Abbey et al., 1995; Acitelli & Antonucci, 1994; Vinokur et al., 1996), active engagement was positively associated with marital satisfaction. In contrast, protective buffering and overprotection were negatively correlated with satisfaction, indicating that, although the partner may have meant well, these attempts are perceived as unhelpful. Second, in line with the stress-buffering hypothesis (e.g., S. Cohen & Wills, 1985), the findings showed the importance of taking into account differences in psychological distress and physical impairment among patients. Not only do the results suggest that people who perceive the highest levels of psychological or physical distress benefit from active engagement the most, these findings also indicate that these are precisely the patients who may be hurt the most by protective buffering and overprotection.

It has to be noted that, on average, both partners indicated that protective buffering and overprotective actions were rather rare. A study by Fiske et al. (1991) suggests that measures of overprotection may be confounded with hostility toward the patient. Thus, perhaps the negative link between marital satisfaction and overprotection was due to hostility.

Many studies of social support use different conceptualizations, including available support, perceived support, and satisfying relationships. In contrast to prior studies, we did not focus on types of support (e.g., emotional and instrumental support) but on ways these types of support can be provided. We want to emphasize that to compare the findings of the various studies in this area, careful conceptualization and measurement are necessary.

The few interactions with gender were in line with prior research suggesting that women are more strongly influenced by

spousal support than are men (e.g., Acitelli & Antonucci, 1994). Active engagement was more strongly positively associated with marital satisfaction among female patients than among male patients, particularly when these female patients had many physical limitations. Furthermore, in contrast to male patients, female patients reported more negative feelings when their partner rated his or her behavior to be more overprotective.

Although most of the interaction effects regarding physical impairment and the ways of providing support based on the partner ratings were only marginally significant, these effects indicate that it is not just common method variance that triggers the relationships found. Post hoc analyses suggested that the behavior of healthy partners affected marital satisfaction through the perceptions of patients. From a practical point of view, this is important because it suggests that the way partners try to support their ill spouse does indeed matter. Overall, the evidence for the moderating role of the patient's physical impairment was somewhat stronger than the evidence for the moderating role of psychological distress. Especially with regard to active engagement, this may be due to the fact that the patients' physical limitations are more visible than their psychological distress. Highly distressed patients are probably disappointed when the support they need is not provided, but they may not hold it against their spouse when they assume that their partner was unable to notice the distress or when they blame themselves for not doing a good job in communicating the distress (cf. Silver, Wortman, & Crofton, 1990). Furthermore, patients may feel that they are more entitled to receive support when they are physically impaired than when they are psychologically distressed because they may feel that physical distress is beyond their control, whereas psychological distress is not (Bolger, Foster, Vinokur, & Ng, 1996).

Furthermore, the findings with respect to the two measures of marital satisfaction—that is, marital quality and negative feelings

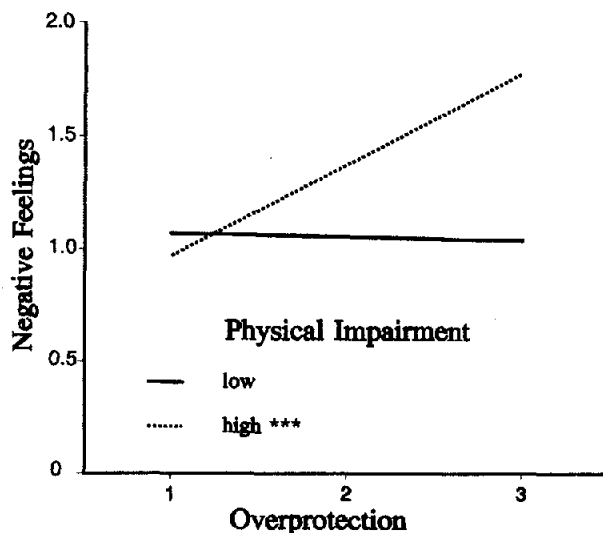


Figure 5. The interactive effect of overprotection and physical impairment on negative feelings on the basis of the patient ratings. The slope for the regression line for high physical impairment was significant: \*\*\*  $p < .001$ .



regarding give-and-take—are similar. The interactive effects are stronger for negative feelings than for marital quality only with respect to overprotection. Because overprotection can result in restricting the patient's activities, patients may feel that their partner devalues their contribution to the relationship. Patients who are highly distressed or seriously impaired might get upset when the few things that they can still do themselves are taken over by their spouse. This may explain why a measure that taps directly into feelings regarding the social exchange within a relationship is more strongly linked to overprotection than is a measure that is focused on a general appraisal of the relationship.

We argued that active engagement may help one regain control over one's life, whereas protective buffering and overprotection are likely to undermine feelings of control. Therefore, the way spousal support is provided may be particularly important for those who are high in psychological or physical distress. In line with this argument, Newsom and Schulz (1998) found that elderly people with health problems who perceived little control over their lives felt more help-related emotional strain when the help of their spouse was insufficient than people who had these problems but perceived much control over their lives. However, Cutrona and Suhr (1992) showed that people who had much control over a stressful event (as judged by observers) did not appreciate the advice from their partner. In contrast, information from the spouse and satisfaction with support were unrelated among people who had little control. Additional research is needed to further clarify the underlying processes of the moderating effects of psychological and physical distress found in the present study.

The present study has a number of limitations. Although most of our measures proved to be reliable, the reliability of the healthy spouses' ratings of protective buffering and the patients' ratings of overprotection could be improved. Furthermore, the current sample was rather small and consisted of patients who, on average, were doing well both psychologically and physically, and most couples had been together for a long time, indicating that their marriages were stable. Future research might shed light on the generalizability of the current findings to patients who are more seriously distressed and to younger patients who have been married for a shorter period.

The present study was cross-sectional and, therefore, does not allow causal inference. Longitudinal studies are needed to examine whether spousal support and distress-disability have interactive effects on marital satisfaction and other aspects of well-being. One of the few longitudinal studies that has been conducted showed that spousal support as indicated by the partners did not affect distress of patients with breast cancer (Bolger et al., 1996). However, the patients may have perceived some of the support attempts of their spouse as helpful whereas they regarded other attempts as unhelpful.

In conclusion, it seems important for partners to be aware of the patient's distress. The partners' intended supportive actions may be beneficial but also detrimental for those patients who are highly psychologically distressed or have many physical limitations. Our findings indicate that open communication between both spouses about the support that is needed and provided could be improved. In order to help couples to cope with cancer, therapists could inform partners about possible maladaptive effects of protective buffering and overprotection and help them in dealing with the

disease. In addition, they should also stimulate couples to discuss how they perceive the partner's supportive actions.

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